

receiving at least one additional bidder voice message;
determining propagation delays of signals within said
network; and

utilizing said propagation delays for presenting said
bidder messages at said output means according to a real-time order
in which of said bidder messages was placed.

REMARKS

Consideration and allowance of the subject application
are respectfully requested.

Claims 24-49 are pending in the application. Claims 24,
34, 41, and 44 are independent.

In view of the above amendments and remarks, it is
believed that this application is now in condition for allowance
and a Notice thereof is respectfully requested.

INFORMATION DISCLOSURE STATEMENT

In compliance with the duty of disclosure under 37 C.F.R.
§ 1.56 and in accordance with the practice under 37 C.F.R. §§ 1.97
and 1.98, the Examiner's attention is directed to the documents
listed on the enclosed Form PTO-1449. Copies of the listed
documents are also enclosed.

CONCLUSION

It is respectfully requested that the below-listed information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3500. All correspondence should continue to be directed to our address given below.

Respectfully submitted,


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Marked-up Paragraphs

[0022] The connections between various components of the auction system 1, as well as between the bidder voice terminals 10 and the auction system, can be physical connections, wireless connections or a combination of both. Likewise, it will be appreciated by a person skilled in the [that] art, the elements of the auction system 1, such as the connecting means 20 and the processing means 30, can each comprise sub-elements distributed at various physical locations. Furthermore, they may be mainly software structures attached to existing hardware platforms available in existing communications networks, specially designed hardware platforms, or a combination of both, such as interface access cards. Moreover, the auctioneer's tasks may be performed by a person or by a data processor that may act on location or remotely, in analyzing the information on the output means 40 and commanding the auctioneer voice transmitter 50 to send voice messages to bidder terminals 10. Therefore, the communication links and the blocks shown in the block diagram of **Figure 1** should not be considered restrictive in a physical sense.

[0023] In operation, a bidder participating in an auction conducted using the auction system 1 of **Figure 1**, enters

bidder messages through a bidder voice terminal 10. The bidder messages are transmitted to the processing means 30 through connecting means 20. The bidder messages are processed into bidder data signals to be outputted at the output means 40 in order of arrival. The processed bidder data signals comprise information on the bidder message content as well as a bidder identifier. Therefore, through the output means 40, the auctioneer acknowledges the content of bidder messages and the identity of bidders that originate the messages, in an orderly fashion. This allows the auctioneer to identify the bidders, reducing ambiguity when more bids are received within a small time interval from various locations.

[0029] A bidder message entering the processing means 30 is routed to the recognizing means 35, where its content is recognized. The recognizing means 35 selects the auction relevant messages from other bidder messages that a bidder may input through a bidder voice terminal 10. The auction relevant messages can be, for example, bids or access messages.

[0035] The access control block 37 may perform one or more of several functions. The access control block 37 may verify

an access message such as a password or a credit card number, for example by accessing special databases such as a credit database 90. Also, in order to determine the access rights of a bidder to the auction, the access control block 37 may generate access information requests as data signals 22 that are coded into voice messages by a voice coder block 36 and sent, through the connecting means 20, to targeted bidder voice terminal 10. Furthermore, upon determining whether a certain bidder may or may not participate in the auction, the access control block 37 may send control signals [24] to the connecting means 20, instructing the connecting means 20 to allow or to restrict the communication of said bidder with the auction system 1. In this way, the access control block 37 updates the record of bidders participating in the auction, which is maintained by the connecting means 20 as previously described.

[0043] The embodiment of the invention presented in **Figures 1 and 2** addresses the problems noted in the Background section, as follows. The auction system in **Figures 1 and 2** allows real-time communication among bidders and auctioneer, without requiring bidders to be physically present at an auction place, or to appoint a representative at an auction place. Through this system, bidders may communicate bidirectionally with the auctioneer

by means of voice terminals. By allowing the auction to be conveyed by voice at least on the bidders side, the system described above is closer to recreating the atmosphere of physical auctions and thus can be found more entertaining or easier to use by potential bidders, leading to a potentially more competitive bidding process. Furthermore, voice terminals can be incorporated within personal computers or they can function as independent pieces of equipment. In the latter case, they can be more accessible in terms of cost of use. Furthermore, current voice terminals are usually wider spread and better connected to existing communication networks, than Internet connected computers used in prior-art systems. Even further, wireless voice terminals are smaller and lighter, thus easier to carry than personal computers.

[0050] The data packets are presented according to a predetermined scheme. According to this embodiment, the auctioneer's computer 45 uses estimates of the different time delays for different bidders through networks 2 and 3 to compensate for the bias in favor of Acloser@ users, and uses these estimates in the predetermined scheme, in order to output data packets according to the time when the associated bidder messages were actually entered. In this embodiment, the auctioneer computer 45 accomplishes the time compensation routine by subtracting the

round-trip delay through networks 2 and 3 of each data packet it receives, from the time at which same data packet is received, before deciding which data packet came first. The same method may be used to alert the auctioneer that a bidder had entered a bid before being able to hear the closing gavel, and the bid should therefore be allowed. The round-trip time estimates needed for this embodiment are obtained from the controlling software for the networks 2 and 3. Alternatively, the round-trip estimates could be obtained from the delay in receiving an echo from a bidder telephone set 10 using a system identification algorithm based on [the] an echo cancellation technique known in the art.

[0051] In accordance with the embodiment in **Figure 3**, the auctioneer computer 45 may command the bid interpreters 14 to act as part of a voice conferencing system by sending data packets through connections 24 to the bid interpreters 14. With the voice conferencing system thus enabled, bidders participating in the auction can hear the voices of active bidders in addition to the voice of the auctioneer. Active bidders are herein defined as bidders participating in the auction and entering bidder messages representing valid bids through their telephone sets 10. Inactive bidders are bidders participating in the auction that remain silent

on the line; bidders involved in a different auction process than a bidding process, such as in the process of obtaining authorization; or bidders who make comments that do not pertain to the auction. The distinction among active and inactive bidders is made at the level of bid interpreters 14, which use voice recognition or other suitable decoding algorithms, to recognize the content of the messages received from bidders.